CLAIMS

1. A separation matrix comprised of a porous support to which ligands have been immobilised, optionally via spacer arms, wherein said ligands comprise one or more sulphonamides wherein an R group of the sulphonyl is an aliphatic compound.
2. A matrix according to claim 1, wherein the sulphonamide is coupled to the porous support via its nitrogen.
3. A matrix according to claim 1, wherein the sulphonamide is coupled to the porous support via its sulphur.
4. A matrix according to any one of the preceding claims, wherein the R group is a methyl group.
5. A matrix according to any one of the preceding claims, wherein the nitrogen of the sulphonamide(s) is a primary or secondary amine.
6. A matrix according to any one of the preceding claims, wherein the ligands are monoamines.
7. A matrix according to any one of claims 1-5, wherein the ligands are polyamines.
8. A matrix according to claim 7, wherein each polyamine comprises two to six amines.
9. A matrix according to claim any one of the preceding claims, wherein the ligands are present as repetitive units of a polymer immobilised to the support.
10. A matrix according to claim 9, wherein the polymer is a polyethylene imine.
11. A matrix according to claim 9 or 10, wherein the polymer exhibit two or more different ligand groups.
12. A matrix according to claim any one of the preceding claims, wherein the ligands are aliphatic compounds.
13. A matrix according to any one of the preceding claims, wherein the support is a cross-linked polysaccharide.
14. A chromatography column packed with a separation matrix as defined in any one of claims 1-13.
15. A chromatography column according to claim 14, which is substantially sterile.
16. A chromatography column according to claim 14 or 15, which is a disposable.
17. A process of preparing a matrix for separation of antibodies, which method comprises a first step of immobilising amines and/or polyamines to a porous support and

a subsequent step of sulphonylating said amines to provide aliphatic sulphonamide ligands.

18. A process of preparing a matrix for separation of antibodies, which method comprises a first step of activating a porous support and a subsequent step of attaching sulphonamides to the activated sites via their sulphurs to provide aliphatic sulphonamide ligands.

19. A method of isolating antibodies from a liquid, which method comprises the steps of

(a) providing a liquid that comprises at least one antibody:

(b) contacting said liquid with a separation matrix, which comprises one or more aliphatic sulphonamide ligands, to adsorb one or more antibodies to said matrix; and, optionally,

(c) passing an eluent over said matrix to release one or more antibodies; and

(d) recovering at least one antibody from a fraction of the eluent.

20. A method according to claim 19, wherein the liquid provided in step (a) also comprises one or more other proteins.

21. A method according to claim 19 or 20, wherein the separation matrix of step (b) is provided in a chromatography column.

22. A method according to any one of claims 19-21, wherein the separation matrix of step (b) is as defined in any one of claims 1-13.

23. A method according to claim 21, wherein step (b) is performed at a close to neutral pH, such as pH 7.2-7.6, preferably about 7.4.

24. A method according to any one of claims 19-23, wherein step (c) is a gradient elution performed by adding an eluent of decreasing salt concentration to the separation matrix.

25. A method according to any one of claims 19-24, wherein step (b) is performed at a pH of or above neutral and step (c) is a gradient elution performed by adding an eluent of decreasing pH.

26. A method according to any one of claims 19-25, wherein the antibodies recovered in step (d) are human or humanised antibodies.

27. A method according to any one of claims 19-26, wherein the antibodies recovered in step (d) are immunoglobulin G (IgG).

28. A method of determining the quantity of an antibody, which method encompass a method as defined in any one of steps 19-27 and in addition a step (e) of determining the amount of antibody spectrophotometrically.